## (19) World Intellectual Property Organization International Bureau





(43) International Publication Date 28 July 2005 (28.07.2005)

PCT

## (10) International Publication Number WO 2005/068553 A1

(51) International Patent Classification<sup>7</sup>: C08K 3/00

C08L 53/00,

(21) International Application Number:

PCT/IN2004/000011

(22) International Filing Date: 16 January 2004 (16.01.2004)

(25) Filing Language:

English

(26) Publication Language:

English

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- (81) Designated States (unless otherwise indicated, for every kind of national protection available): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG,

PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.

(84) Designated States (unless otherwise indicated, for every kind of regional protection available): ARIPO (BW, GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

## Declaration under Rule 4.17:

as to applicant's entitlement to apply for and be granted a patent (Rule 4.17(ii)) for the following designations AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, UZ, VC, VN, YU. ZA, ZM, ZW, ARIPO patent (BW, GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG)

## Published:

with international search report

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

(54) Title: IMPROVED THERMOPLASTIC POLYOLEFIN ALLOYS AND PROCESS FOR THEIR PREPARATION

(57) Abstract: A thermoplastic polyolefin alloy having high (notched) Izod impact strength and process for its preparation are disclosed. The alloys of this invention comprises of a polypropylene block copolymer as a base polymer, an elastomer, a compatibilizer and optionally a natural filler and is prepared by melt blending a twin-screw extruder (or Buss-co-kneader) the above ingredients. The polyolefin alloys of this invention exhibit very high (notched) Izod impact strength of 60 to 90 kg. cm/cm, flexural modulus of 6,000 to 8,000 kg/cm2, tensile strength at yield of 150 to 200 kg/cm2, and heat deflection temperature of 60 to 70 °C with 4.6 kgf stress. The alloys also possess melt flow index of 2-5 g/10 min. when tested according to ASTM D1238 and allow injection molding, compression molding, thermoforming and other conventional techniques to be applied for making end products that demand high impact strength.